

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-22. (Canceled)

23. (Previously Presented) A method for monitoring an exhaust system of a motor vehicle, comprising:

measuring exhaust-gas temperature at an outlet side of an exhaust pipe section which is intended to accommodate a component with a purifying activity;

determining a calculated value for the exhaust-gas temperature at the outlet side of the exhaust pipe section on the basis of at least one of the heat-storing and fluid-dynamic action of the component with a purifying activity; and

comparing a time curve of the measured outlet-side exhaust-gas temperature with a time curve of the calculated value for the exhaust-gas temperature at the outlet side.

24. (Previously Presented) The method as claimed in claim 23, further comprising determining the time derivative of the outlet-side exhaust-gas temperature, the time derivative of the calculated temperature, and the difference between the derivatives.

25. (Previously Presented) The method as claimed in claim 24, further comprising generating a signal which indicates the absence of the component with a purifying activity or the presence of an incorrect component if the difference between the derivatives is outside a predetermined range of values.

26. (Previously Presented) The method as claimed in claim 23, determining the time derivative of the outlet-side exhaust-gas temperature, the time derivative of a measured inlet-side exhaust-gas temperature at an inlet side of the exhaust pipe section, and the time derivative of the calculated value for the exhaust-gas temperature at the outlet side of the exhaust pipe section, and generating a signal which indicates the absence of the component with a purifying activity or the presence of an incorrect component if the difference between the derivatives is outside a predetermined range of values and the time derivative of the inlet-side exhaust-gas temperature is outside a predetermined range of values.

27-31. (Canceled)

32. (Previously Presented) A method for monitoring an exhaust system of a motor vehicle having an internal combustion engine and having monitoring electronics, a temperature sensor for measuring an outlet-side exhaust-gas temperature being arranged at the outlet side of an exhaust pipe section which is intended to accommodate a component with a purifying activity, and the monitoring electronics compare a time curve of the outlet-side exhaust-gas temperature with a time curve of a calculated value for the exhaust-gas temperature at the outlet side of the exhaust pipe section, wherein the calculated value is determined on the basis of the heat-storing and/or fluid-dynamic action of the component with a purifying activity.

33. (Previously Presented) The method as claimed in claim 32, wherein the monitoring electronics determine the time derivatives and of the outlet-side exhaust-gas temperature and of the calculated temperature and the difference between the derivatives.

34. (Previously Presented) The method as claimed in claim 33, wherein the monitoring electronics generate a signal which indicates the absence of the component with a purifying activity or the presence of an incorrect

component if the difference between the derivatives is outside a predetermined range of values.

35. (Previously Presented) The method as claimed in claim 32, wherein the monitoring electronics determine the time derivatives and of the inlet-side exhaust-gas temperature and of the outlet-side exhaust-gas temperature and also the time derivative of the calculated value for the exhaust-gas temperature at the outlet side of the exhaust pipe section and generate a signal which indicates the absence of the component with a purifying activity or the presence of an incorrect component if the difference between the derivatives is outside a predetermined range of values and the time derivative of the inlet-side exhaust-gas temperature is outside a predetermined range of values.

36. (New) The method as claimed in claim 23, further comprising determining the time derivative of the outlet-side exhaust-gas temperature, the time derivative of a measured inlet-side exhaust-gas temperature at an inlet-side of the exhaust pipe section, and the time derivative of a calculated value for the exhaust-gas temperature at the outlet-side of the exhaust pipe section, and generating a signal which indicates the absence of the component with a purifying activity or the presence of an incorrect component if the difference between the time derivatives of the calculated and the measured value for the outlet-side exhaust-gas temperature is outside a predetermined range of values and the time derivative of the inlet-side exhaust-gas temperature is outside a predetermined range of values.

37. (New) The method as claimed in claim 32, wherein the monitoring electronics determine the time derivatives of the outlet-side exhaust-gas temperature and of the calculated temperature and the difference between the derivatives.

38. (New) The method as claimed in claim 37, wherein the monitoring electronics generate a signal which indicates the absence of the component with

a purifying activity or the presence of an incorrect component if the difference between the derivatives is outside a predetermined range of values.

39. (New) The method as claimed in claim 32, wherein the monitoring electronics determine the time derivatives of an inlet-side exhaust-gas temperature and of the outlet-side exhaust-gas temperature and also the time derivative of the calculated value for the exhaust-gas temperature at the outlet-side of the exhaust pipe section and generate which indicates the absence of the component with a purifying activity or the presence of an incorrect component if the difference between the derivatives of the calculated and the measured value for the outlet-side exhaust-gas temperature is outside a predetermined range of values and the time derivative of the inlet-side exhaust-gas temperature is outside a predetermined range of values.

40. (New) A method for monitoring an exhaust system of a motor vehicle, comprising:

measuring an exhaust-gas temperature at an outlet side of an exhaust pipe section which can accommodate a component with a purifying activity;
measuring an exhaust-gas temperature at an inlet side of the exhaust pipe section;

carrying out a comparison of a time curve of the outlet-side exhaust-gas temperature with a time curve of the inlet-side exhaust-gas temperature; and

generating a signal if an evaluation of said comparison indicates the absence of the component with a purifying activity or the presence of an incorrect component.

41. (New) The method as claimed in claim 40, wherein the comparison of the time curves comprises the determination of a time derivative of the outlet-side exhaust-gas temperature or of the inlet-side exhaust-gas temperature.

42. (New) The method as claimed in claim 41, further comprising determining both the time derivative of the measured outlet-side and inlet-side

exhaust-gas temperature, and determining the difference between the time derivatives.

43. (New) The method as claimed in claim 42, wherein the signal is generated if the difference between the derivatives is within a predetermined range of values.

44. (New) The method as claimed in claim 42, wherein the signal is generated if the difference between the derivatives is within a predetermined range of values and the time derivative of the inlet-side exhaust-gas temperature is outside a predetermined range of values.

45. (New) The method as claimed in claim 41, further comprising determining the time derivative of the measured outlet-side and inlet-side exhaust-gas temperatures, and the time derivative of a calculated value for the exhaust-gas temperature at the outlet-side of the exhaust pipe section, wherein the signal is generated if the difference between the time derivatives of the calculated and the measured value for the outlet-side exhaust-gas temperature is outside a predetermined range of values and the time derivative of the inlet-side exhaust-gas temperature is outside a predetermined range of values.

46. (New) A method for monitoring an exhaust system of a motor vehicle having an internal combustion engine and having monitoring electronics, a temperature sensor for measuring an outlet-side exhaust-gas temperature being arranged at the outlet-side of an exhaust pipe section which is intended to accommodate a component with a purifying activity, and the monitoring electronics compare a time curve of the outlet-side exhaust-gas temperature with a time curve of an inlet-side exhaust-gas temperature at the inlet side of the exhaust pipe section, wherein the monitoring electronics;

determine the time derivatives of the inlet-side exhaust-gas temperature and the outlet-side exhaust-gas temperature and the difference between the derivatives, and

generate a signal which indicates the absence of the component with a purifying activity or the presence of an incorrect component if the difference between the derivatives is within a predetermined range of values.

47. (New) The method as claimed in claim 46, wherein the signal is generated if the difference between the derivatives is within a predetermined range of values and the time derivative of the inlet-side exhaust-gas temperature is outside a predetermined range of values.